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## ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

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July 8, 2003

Commander, Southern Division  
Naval Facilities Engineering Command  
Attn: Mr. Anthony Robinson  
2155 Eagle Drive  
North Charleston, South Carolina 29406

Re: Revised Draft Remedial Investigation and Risk  
Assessment Report Site 17 – Pettibone Creek  
and Boat Basin, Naval Training Center Great  
Lakes, Great Lakes, IL

0971255048 – Lake  
Great Lakes Naval Station  
Superfund/Technical

Dear Mr. Robinson:

The Illinois Environmental Protection Agency (Illinois EPA or Agency) is in receipt of the Revised Draft Remedial Investigation and Risk Assessment Report, Site 17 – Pettibone Creek and Boat Basin from Tetra Tech NUS, Inc. It was received at Illinois EPA on May 23, 2003. The Agency has reviewed the Navy's corrections to the Draft document and has the following additional comments:

- 1) **Executive Summary** – The next to last sentence recommends that no remedial action be conducted for the sediments at Pettibone Creek and the Boat Basin. This appears to be based on the prior statement that there are still upstream sources possibly contributing to the contamination of Pettibone Creek. While this may be true, the Human Health Risk Assessment of the RI/RA does reveal that the Hazard Indices (HIs) and Incremental Lifetime Cancer Risks (ILCRs) estimated for recreational fisherman consuming fish contaminated with PCBs and pesticides exceeded USEPA benchmarks. The Ecological Risk Assessment also revealed that several chemicals were retained as COCs in the North Branch of Pettibone Creek and the Boat Basin because they were detected at concentrations that exceeded many of the alternate benchmarks in several samples. This indicates that there may be potential risks to aquatic receptors from these chemicals. The determination to conduct or not conduct remedial action should be based upon risk, rather than on the potential existence of continuing sources. Therefore,

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the CERCLA process should be continued by evaluating and comparing remedial alternatives in a formal Feasibility Study (FS). One of the alternatives in the FS could be Limited Action with Land Use Controls (LUCs) utilizing Institutional Controls (ICs) to restrict fishing or fish consumption from the Pettibone Creek/Boat Basin areas on base and LUCs to ensure the current recreational use does not change in the future. This is only an example, not a preferred remedial alternative.

- 2) **Section 6.1.2.1** - Under the heading of the sediment screening levels, the next to last paragraph includes a reference to the document used for the Illinois sediment inorganic constituent background comparisons. The reference is incorrect and should identify the Evaluation of Illinois Sieved Stream Sediment Data, 1982-1995 document.
- 3) **Section 6.5.1.1, Existing Databases** – The third sentence needs revising. Some verbiage was removed without restructuring the remaining part of the sentence.
- 4) **Section 8.3.1** - In the last bullet for this section, it would help make the point that the fish contaminant model is over predictive if it were noted that the STORET fish contaminant concentrations from station QZB12 were also “historic” (1984) and more closely correlate, temporally, with the higher sediment contaminant levels.
- 5) **Section 8.4** - The discussion of the Illinois Fish Advisory program in the third paragraph of this section seems to contradict earlier assertions. The subject discussion indicates that the Lake Michigan fish advisory validates the sediment-fish bioaccumulation modeling and reduces uncertainty; yet, at other times in this report, the modeling is characterized as overprotective.
- 6) **Section 8.5** – Please define the abbreviation “DDTR”.
- 7) **Section 9.0** - Several errors were detected in the seventh bullet (page 9-2) of this section.
  - The first sentence should be corrected to read, “...chemicals for pesticide control.”
  - The fourth sentence should be corrected to read, “...stored, mixed, or stored used ...”
  - For clarity, revise the fifth sentence to read, “Historically, banned pesticides...”
  - In the sixth sentence, the verb should be plural to agree with the plural noun “data”.
- 8) **Section 9.0** - In the 11<sup>th</sup> bullet (page 9-3) in this section, the fourth sentence should be modified to read, “...contamination is mostly likely...”
- 9) **Section 9.0** - The discussions of the uncertainties in the modeled fish tissue concentrations for the HHRA and the ERA (page 9-6), should be separated and relocated to the respective summary sections, page 9-6.

- 10) **Section 9.0** - On page 9-6, in the first and second sentences of the introduction to the discussion of uncertainties regarding the modeled fish contaminant levels, plural verbs need to be used for the plural noun "data". Also, in this same section, the first bullet would be more accurate if revised to read, in the first sentence, "...Advisory is issued to recommend restriction of fish consumption..." and in the second sentence, "...salmon are restricted advised to be limited to..."
- 11) **Section 9.0** - In the first paragraph (page 9-7) of the three concluding paragraphs of this section, the plural subject "data" requires the plural verb "indicate".
- 12) **Section 9.0, Summary and Conclusions** - See comment number 1 above.

Illinois EPA cannot grant its concurrence on the Final Remedial Investigation and Risk Assessment Report until these additional comments have been addressed and the proposed changes have been verified. Upon reaching agreement on the above comments and verification that the proposed changes have been made to the final document, the Agency will draft a final concurrence letter.

If you have any questions or require additional information, please contact me at (217) 557-8155 or by electronic mail at [brian.conrath@epa.state.il.us](mailto:brian.conrath@epa.state.il.us).

Sincerely,

*Brian A. Conrath*

Brian A. Conrath  
Remedial Project Manager  
Federal Facilities Unit  
Federal Site Remediation Section  
Bureau of Land

*BAC*  
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cc: Owen Thompson, USEPA (HSRL-5J)  
Bob Davis, Tetra Tech NUS, Inc.  
Mark Shultz, US Navy - EFA Midwest